REMARKS

The claims have been amended by changing claims 1-14, canceling no claims, and adding a new claim 15. Claims 1-15 are in the application.

Reconsideration of this application is respectfully requested.

Informalities in the Abstract

By lack of comment in the most recent Office Action about the Abstract, the applicant assumes that the examiner has accepted the applicants' proposal.

Claim 11 was objected to under 37 C.F.R. 1.75(a) as being unclear.

Claim 11 has been amended to change its dependency to claim 10, as recommended by the examiner.

Claim Rejections - 35 U.S.C. § 102(b):

Claims 1, 4, 5, 9, and 14 were rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Basu [US Patent 6,594,629, for the same reasons as in the previous Office Action.

The last element of each of claims 1 and 14 has been changed very similarly to read approximately as changed in claim 1: "synchronously generating a sequence of a set of visemes wherein each set of visemes in the sequence is derived from a corresponding one of the time domain frame classification vectors." In addition, claims 1, 4, 5, 9, and 14 have been changed to specify that the "speech signal" is an "audio speech signal". Applicant believes these changes overcome the Examiner's argument in both of the Office Actions generated for this application (mailed June 28, 2005 and Nov. 14, 2005).

In response to item b of the Examiner's reasons given that the amendment of Jan. 17, 2006 did not place the application in a better condition for allowance, listed under Item 11 of the Advisory Action dated Jan. 24, 2006, Applicant asserts that a logical analysis of the wording of claims 1, 9, and 14 as presented in this amendment leads to an unavoidable conclusion that each set of visemes is derived from one frame of digitized analog speech information. In the

second element of the claims (filtering), "each of the time domain frame classification vectors is derived from one of the successive frames of digitized analog speech information", and in the third element of the claims (synchronously generating), "each set of visemes in the sequence is derived from a corresponding one of the time domain frame classification vectors". Ergo, each set of visemes in the sequence is derived from one of the successive frames of digitized analog speech information.

For these reasons, applicant believes that claims 1, and 14 are patentable over Basu and any combination of Basu and the art cited in this application.

Applicant further believes that claims 4, 5, and 9 are patentable because they are dependent upon claim 1, which applicant believes is patentable.

Claim Rejections - 35 U.S.C. § 102(e):

Claims 1, 2, 9, 10, and 12-14 were rejected under 35 U.S.C. § 102(e) as being anticipated by Sutton [US Patent 6,539,354] using the same rationale as in the Office action mailed June 28, 2005, and for supplemental reasons.

Applicant respectfully traverses the Examiner's rejection of claims 1, 2, 9, 10, and 12-14 as being clearly anticipated by Sutton. Applicant believes that the Examiner has mis-characterized Sutton. Sutton, at col. 19, lines 1-13 characterizes the phoneme generation process as follows:

> Referring to FIG. 8, a speech input stream **2** B, or speech wave, is received into the system in 10 ms frames at a sampling rate of typically between 8 kHz to 45 kHz (depending on the system capability and the desired speech quality). A feature representation is computed for each frame and assembled into a content (feature) window **6**. The feature window **6** contains 160 ms of speech information or, in other words, data from sixteen 10 ms frames. The feature window **6** is transmitted to a phonetic (phoneme) estimator **10**B. The phoneme estimator **10**B includes a phoneme neural network **16**B which receives the feature window **6** as an input and produces context- dependent phoneme (phone) estimates **12** as an output. The phoneme estimates **12** are then sent to a viseme estimator **30**B.

> The viseme estimator **30**B includes a viseme neural network **34**B which takes the phoneme estimates **12** and produces viseme data **32** for the frames. The viseme data includes weighting information.

Applicant analogized Sutton's window to a frame because in applicants' invention, the time domain classification vector, which is based on one frame of audio information, is that from which one set of visemes are generate, and in Sutton it is the content window from which the visemes are generated. The use by applicant of "frame" this way may have been a non-ideal choice. Applicant will hereafter use "frame" the way it is used in applicants' specification, in the manner that is well known in the art, in which it is the smallest set of digitized audio samples analyzed as a group by a digitized speech processor, and in some embodiments is a set of digital samples representing 10 msec of audio speech (applicants' specification, page 3, lines 26-33). The point to be made is that Sutton's visemes are generated based on a "content window" rate (every 160 msec), generating visemes at the rate of every 160 msec or perhaps at an irregular phoneme rate, but clearly not one viseme or set of visemes for every frame as described by Sutton. (This last statement has been revised in response to Examiner's reason 11 c in the Advisory Action to clarify the meaning.)

Applicant's claim 1 makes it clear that a set of visemes are generated every frame. (This last statement has been revised in response to Examiner's reason 11 d in the Advisory Action to clarify the meaning.)

For these reasons, applicant believes that claims 1 and 14 are patentable over Sutton and any combination of Sutton and the art cited in this application.

Applicant believes that claims 2, 9, and 10 are patentable because they are dependent upon claim 1, which applicant believes is patentable.

Applicant believes that claims 12 and 13 are patentable for the same reasons as claim 1.

Claim Rejections - 35 U.S.C. § 103:

Claims 6-8 were rejected under 35 U.S.C. § 103 as being unpatentable over Basu (US Patent 6,594,629) in view of David J. Thomson, "An Overview of Multiple-Window and Quadratic-Inverse Spectrum Estimation Methods," IEEE 1994, pp. VI 185-VI 194.

Applicant believes that claims 6-8 are patentable because combining Thomson with Basu fails because Basu fails for the reasons described above with reference to the rejection of Claims 1 and 14 over Basu.

Notwithstanding these reasons, applicant believes that claims 6-8 are patentable on their own merits, and respectfully traverses Examiner's rejection thereof, for the reason that

Thomson does not provide a motivation of using N MTDPSSB functions in applicants' claimed invention. In fact, the advantage described in <u>Thompson</u> of using MTDPSSB functions, which is the advantage of achieving the best possible leakage properties for a dynamic range, was purposefully sacrificed in order to perform the computation of the MTDPSSB with the low latency needed to achieve synchronization.

Accordingly, this application is believed to be in proper form for allowance and an early notice of allowance is respectfully requested.

Please charge any fees associated herewith, including extension of time fees, to 502117.

Respectfully submitted,

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